

## Abstract

A process for reducing the content of oxygen-containing and/or nitrogen-containing compounds in streams having an isobutene content of at least 10% by weight, which comprises passing the stream in the liquid state at a temperature  $T$  [in K] and a linear velocity  $v$  [in cm/min] over a fixed bed of an acid-free zeolite having a mean pore size of from 0.3 to 1.5 nm, where the fixed bed has a length  $l$  [in cm] in the flow direction of the stream and  $T$ ,  $v$  and  $l$  obey the relationship

$$2^{(T-283\text{ K})/10\text{ K}} \cdot l/v \leq 500\text{ min},$$

is described. The process avoids the formation of isobutene oligomers.